

### **REMARKS/ARGUMENTS**

Claims 1-31 are pending in the present application. In the Office Action mailed January 24, 2006, the Examiner rejected claims 1-31 under 35 U.S.C. § 103(a).

Reconsideration is respectfully requested in view of the above amendments to the claims and the following remarks.

#### **I. Rejection of Claims 1-31 Under 35 U.S.C. § 103(a)**

The Examiner rejected claims 1-31 under 35 U.S.C. § 103(a) based on U.S. Patent No. 6,499,054 to Hesslink (hereinafter, "Hesslink") in view of U.S. Patent No. 6,028,412 to Shine (hereinafter, "Shine"). This rejection is respectfully traversed.

The M.P.E.P. states that

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

M.P.E.P. § 2142.

Applicants respectfully submit that the claims at issue are patentably distinct from the cited references. The cited references, Hesslink and Shine,<sup>1</sup> do not teach or suggest all of the limitations in these claims. Specifically, as a result of this paper, independent claims 1, 11, and

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<sup>1</sup> Applicants respectfully submit that Hesslink and Shine are not properly combinable under the standards governing § 103(a). Because the present claim amendment clearly distinguishes the present claims from these references, Applicants will, for the purposes of brevity, not present these arguments at the present time. However, Applicants reserve the right to raise these arguments later during further prosecution of this matter, if necessary.

22 have been amended to clarify that “each control frequency that is assigned has a value of  $2^N$ .” Support for this limitation is found throughout Applicants’ specification, including paragraphs 76-78.

However, such a limitation is not taught or suggested by either Hesslink or Shine. Specifically, the Examiner concedes that Hesslink does not teach this limitation. See Office Action, page 3. Moreover, with respect to Shine, this reference does not teach a system in which “each control frequency that is assigned has a value of  $2^N$ .”

In the Office Action, the Examiner cites a portion of Shine which states:

Preferably, under conditions where the generated clock signal frequency equals the desired frequency, the first iterative value is set by the value of a detected input corresponding to the desired frequency of the clock signal.

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More preferably, both the stored trigger value and interrupt frequency are a value  $2^n$ , where n is a positive integer.

Shine, col. 1, lines 62-65; col. 2, lines 16-17. Shine teaches the use of  $2^N$  frequencies for comparing accumulated frequencies to desired frequencies, presumably because bitwise comparisons are simplified using multiples of 2 in integrated circuits. However, neither the “stored trigger value” nor the “interrupt frequency” taught by Shine are the desired digital frequencies to be generated.

Applicants refer to Figures 8-16 of Shine. In these figures, it appears that the term r represents the desired frequency, and the term Hz represents the frequency attained. However, Applicants respectfully submit that these figures show frequency targets that are not of the value  $2^N$ . For example, in Figure 8, the desired frequency is 431, which clearly is not of the value  $2^N$ . In addition, the attained frequencies include 444.4 Hz, 421.1 Hz, 432.4 Hz, and so forth, which are also clearly not of the value  $2^N$ . The same can be said of Figures 9-16 as well.

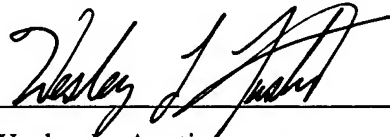
In view of the foregoing, Applicants respectfully submit that the combined teachings of Hesslink and Shine do not teach or suggest all the limitations of claims 1, 11, and 22. Accordingly, Applicants respectfully request that the rejection of claims 1, 11, and 22 be withdrawn.

Claims 2-10 depend, either directly or indirectly, from independent claim 1. Likewise, claims 12-21 depend, either directly or indirectly, from independent claim 11. Finally, claims 23-31 depend, either directly or indirectly, from independent claim 22. Accordingly, Applicants respectfully request that the rejection of these dependent claims based upon the combination of Hesslink and Shine be withdrawn for at least the same reasons as those presented above in connection with claims 1, 11, and 22.

II. Conclusion

Applicants respectfully assert that all pending claims are patentably distinct from the cited references, and request that a timely Notice of Allowance be issued in this case. If there are any remaining issues preventing allowance of the pending claims that may be clarified by telephone, the Examiner is requested to call the undersigned.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Wesley L. Austin', is written over a horizontal line.

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